Remarks/Arguments

In the Final Office Action dated April 1, 2008, it is noted that claims 1-19 are pending, that claims 1-4, 6-9, and 11-19 stand rejected under 35 U.S.C. §103, and that objection has been raised with respect to claims 5 and 10.

Independent claims 1, 11, 18, and 19 have been amended to include a limitation defining the variables, N and M. Allowable dependent claims 5 and 10 have been rewritten as new independent claims 20 and 21. No new matter has been added.

By this response, entry of this amendment, reconsideration of the application, and allowance of the claims are respectfully requested.

Allowable Subject Matter

Claims 5 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Applicants' representative thanks the Examiner for identifying allowable subject matter in this application.

As mentioned above, Applicants have added new independent claims 20 and 21 which correspond to allowable claims 5 and 10.

Cited Art

The references cited and applied against the claims are listed as follows: U.S. Patent 6,667,954 to Boduch et al. (hereinafter referenced as "*Boduch*"), U.S. Patent 6,246,681 to Humphrey et al. (hereinafter referenced as "*Humphrey*") and U.S. Patent 6,320,860 to Hurlocker (hereinafter referenced as "*Hurlocker*").

Rejection of Claims 1-4, 6-9, 17, and 18 under 35 U.S.C. §103

Claims 1-4, 6-9, 17, and 18 stand rejected under 35 U.S.C. §103 as being unpatentable over Boduch in view of Humphrey. This rejection is respectfully traversed.

Claim 1 is an apparatus claim from which claims 2-4, 6-9, and 17 depend, either directly or indirectly. Claim 18 is an apparatus claim. Claim 18 includes limitations similar in nature to those presented in claim 1. Accordingly, the remarks

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below will be made with respect to claim 1 and will be understood to apply also to claim 18 without requiring a full repetition of those remarks.

Claim 1 calls, in part, for first and second router cards that each generates an associated set of M parity encoded output digital audio streams from N parity encoded input digital audio streams. In the present Office Action at page 22, it is stated that, "Boduch clearly shows M×N of 12×1 matrix card in fig. 4 ... Humphrey also discloses N×M of 32×10 'data conversion' block in fig. 4 thereof." While the correctness of what is shown in the references is not disputed, issue is taken with respect to their applicability to the elements in question because it is clear that these teachings by Boduch and Humphrey have no bearing on the router cards defined in claim 1.

Boduch's Figure 4 cannot be used to draw correspondences to one element of claim 1 at one time and another element of claim 1 at the same time. Figure 4 in Boduch is a detailed diagram of the sequence manager, the cell delay variation function, and the byte interleaver found in the STS mapping element 225. The STS mapping element, in turn, is a part of the best cell copy selection ASIC 110 found in egress port module 109. Egress port module 109 has been identified on page 4 of the present Office Action as corresponding to the output card defined in claim 1. As such, the egress port module or portions thereof from Boduch can have no bearing on the router matrix cards defined in claim 1. The router matrix cards are separate entities from the output card. The present Office Action already drew a correspondence from the redundant switch networks, switch network copy 107 and switch network copy 108, to the first and second router matrix cards and those redundant switch networks of Boduch are not N×M networks. The teachings with respect to Boduch's egress port module cannot be used to cure deficiencies in the teachings about his redundant switch networks.

Contrary to the assertion in the present Office Action, Humphrey's Figure 4 includes parallel-to-parallel reformatters and not a switch. Figure 4 in Humphrey is a diagram of the data formatter circuit 84 found in the egress path after redundant path combiner 82. See Figure 2 in Humphrey. The redundant path combiner is employed to select between redundant incoming data streams received from the egress busses. See Humphrey at col. 7, lines 37-39. The data conversion circuits 128 and 130 in the data formatter circuit are said to reformat the 32 bit

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parallel STM data into 10 bit parallel DS-0 format data. *See Humphrey at col. 11, lines 20-26.*

Humphrey was added to Boduch because Boduch failed to teach parity encoded streams as defined in claim 1. *See Office Action at page 9.* On page 10 of the Office Action, a suggestion was made that it would be obvious to incorporate parity encoding and parity error checking from Humphrey as an alternative, or in addition, to Boduch's already disclosed error checking/correction method. This suggestion is based on error. Moreover, even if Humphrey were added to Boduch in the manner suggested, the resulting combination would still not arrive at the invention defined in claim 1.

The error in the suggestion in the present Office Action is that Boduch does not disclose any method or manner of either error detection or error correction. Instead, Boduch discloses that the data stream includes status information including a bit error status bit that can be set in one of two states, wherein one state indicates the presence of a bit error and wherein the other state indicates the absence of a bit error. Boduch does not indicate where and how the presence or absence of the error is detected so that the status bit can be properly set. Boduch lacks any teaching at all about a method for error detection. Moreover, Boduch does not indicate that his data streams include parity or error detection/correction codes in addition to the data itself. Boduch only indicates the presence of the status information in the form of a bit error status bit.

As asserted above, the resulting combination of Boduch and Humphrey would still not arrive at the invention defined in claim 1. Humphrey clearly teaches the use of even parity on one data stream and odd parity on the other stream. Even though the streams might be the same before undergoing the parity operation, the streams that result from even and odd parity generation would necessarily be different because of the differences in odd and even parity alone. Claim 1 defines that the first router matrix card receives N parity encoded input digital audio data streams and that the second router matrix card receives the same N parity encoded input digital audio data streams. *Note the use of "said" in claim 1 in front of the second occurrence of the "N parity encoded input digital audio data streams" and also see Applicants' Figure 2 with respect to the Y-branch connection between parity encoder 126 and router matrices 124a and 124b.* The combination of Humphrey and Boduch would not result in the limitations found in claim 1. Instead, these

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references in combination would cause different streams to be input to the two router cards because of the use of odd and even parity encoding.

From these remarks, it should be understood that Boduch and Humphrey fail to teach, show, or suggest the specific limitations defined in claim 1. It is therefore submitted that Boduch and Humphrey fail to teach all the elements of independent claims 1 and 18. Because the dependent claims include all the limitations of their respective independent base claims, it is further submitted that Boduch and Humphrey fail to teach all the elements of dependent claims 2-4, 6-9, and 17. Accordingly, it is submitted that the present claims would not have been obvious to a person of ordinary skill in the art upon a reading of Boduch and Humphrey. Thus, it is submitted that claims 1-4, 6-9, 17, and 18 are allowable under 35 U.S.C. §103. Withdrawal of this rejection is respectfully requested.

Rejection of Claims 11-16 and 19 under 35 U.S.C. §103

Claims 11-16 and 19 stand rejected under 35 U.S.C. §103 as being unpatentable over Boduch in view of Humphrey and further in view of Hurlocker. This rejection is respectfully traversed.

Claim 11 is a method claim from which claims 12-16 depend, either directly or indirectly. Claim 19 is also a method claim that includes limitations similar in nature to those presented in claim 11. It should be noted that claim 11 includes many of the same limitations discussed above with respect to claim 1. The remarks above with respect to claim 1 are incorporated herein to the extent that they apply to claims 11 and 19. Additionally, the remarks below will be made with respect to claim 11 and will be understood to apply also to claim 19 without requiring a full repetition of those remarks.

With respect to the limitations discussed above in claim 1 that are similar to the limitations found in claim 11, it should be noted that Hurlocker fails to cure the deficiencies in the combined teachings of Boduch and Humphrey. Of interest is that Hurlocker was apparently added to the combination of Humphrey and Boduch to provide a teaching about adding error counts to the management cell. *See Office Action at page 15*. Therefore, it is submitted that claim 11 is also allowable over the applied art for at least the reasons discussed above with respect to claim 1.

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It should be noted that claim 11 includes the following limitations:

> *"each one of said at least one component of said first router matrix card adding at least one bit of information to said first set of M output digital audio data streams propagating therethrough ... each one of said at least one component of said second router matrix card adding at least one bit of information to said second set of M output digital audio data streams propagating therethrough".*

These limitations are not shown, taught, or suggested in the combination of Boduch, Humphrey, and Hurlocker.

While it appears that Boduch provides error counts for each stream and that Boduch does not add these error counts to the streams, it would not have been obvious to add the error counts to the streams themselves in the manner taught by Hurlocker. The addition of such counts to the streams would certainly increase the bit count in Boduch's cells. Boduch has not shown any desire to increase the size of his cells. Further, since there would be more bits in each of Boduch's cells by making the suggested combination, there would need to be a concomitant increase in the bit rate in order to maintain a similar timing for cell throughput. Boduch has shown no desire to increase his overall data (bit) rate or cell throughput rate. Unless Boduch included some desire or motivation within his own reference to include the error count data in his data streams, it is not obvious to add the teachings of Hurlocker to Boduch.

From these remarks, it should be understood that Boduch, Humphrey, and Hurlocker fail to teach, show, or suggest the specific limitations defined in claim 11. It is therefore submitted that Boduch, Humphrey, and Hurlocker fail to teach all the elements of independent claims 11 and 19. Because the dependent claims include all the limitations of their respective independent base claims, it is further submitted that Boduch, Humphrey, and Hurlocker fail to teach all the elements of dependent claims 12-16. Accordingly, it is submitted that the present claims would not have been obvious to a person of ordinary skill in the art upon a reading of Boduch, Humphrey, and Hurlocker, either separately or in combination. Thus, it is believed that claims 11-16 and 19 are allowable under 35 U.S.C. §103. Withdrawal of this rejection is respectfully requested.

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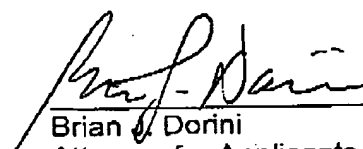PATENT
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CONCLUSION

In view of the foregoing, it is respectfully submitted that all the claims pending in this patent application are in condition for allowance. Entry of this amendment, reconsideration of the application, and allowance of all the claims are respectfully solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner contact the applicants' attorney at (609) 734-6817, so that a mutually convenient date and time for a telephonic interview may be scheduled for resolving such issues as expeditiously as possible.

As we indicate on the attached fee transmittal, please charge the $470 excess claims fee to Deposit Account No. 07-0832. In the event there are any errors with respect to the fees for this response or any other papers related to this response, the Director is hereby given permission to charge any shortages and credit any overcharges of any fees required for this submission to Deposit Account No. 07-0832.

Respectfully submitted,

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